RAMSAY'S

SKETCH OF SOUTH-CAROLINA.

BRITISH MUSEUM

Dr Lettsom London 5

A

SKETCH

OF THE

SOIL, CLIMATE, WEATHER,

AND

DISEASES

OF

SOUTH-CAROLINA,

READ BEFORE THE MEDICAL SOCIETY OF THAT STATE,

BY

DAVID RAMSAY, M. D.

VICE-PRESIDENT OF THE SOCIETY.

CHARLESTON:
PRINTED BY W. P. YOUNG,
FRANKLIN'S HEAD, NO. 43, BROAD-STREET.

MDCCXCVI.

BRITISH MUSEUM

SKETCH

OF THE

SOIL, CLIMATE, WEATHER, AND DISEASES

OF

SOUTH-CAROLINA.

SOUTH-CAROLINA nearly reſembles a triangle—It is bounded on the eaſt by the Atlantic ocean, and extends thereon about two hundred miles; on the ſouth, and partly on the weſt by the river Savannah; and on the north, and partly on the weſt by North-Carolina. Theſe two laſt mentioned boundary lines approximate to each other, about three hundred miles from the ſea-coaſt, and in the vicinity of the Alleghany mountains.

The ſtate of South-Carolina lies between the 32d and 35th degrees of north latitude. Its chief city, Charleſton, is in north latitude 32° 45, and in weſt longitude from London, 79°, and from Philadelphia, 5°, and ſtands on a point of land between the junction of Aſhley and Cooper rivers, and about ten miles from the ocean.

In treating of South-Carolina, the philoſopher, as well as the politician, muſt conſider it as divided into upper and lower country. Nature has marked this diſtinction in many particulars. Along the ſea-coaſt, and for one hundred miles weſtward, the country is generally low and flat; from thence, to its weſtern extremity, it is diverſified with hills, riſing higher and higher, till they terminate in the Alleghany mountains, which are the partage ground of the eaſtern and weſtern waters. In the vallies, between theſe hills, a black and deep loam is found. This has been formed by abraſion from the hills, and from rotten trees and other vegetables, which have been collecting for centuries.

The rivers of the upper country originate in the mountains, and are an aſſemblage of ſtreams. After theſe have paſſed into the low country, they move ſlowly, and in a ſerpentine courſe, till they empty into the ocean. The rivers of the low country are, properly, arms of the ſea, extending but a few miles till they head in ſwamps and marſhes.

Carolina, lying on the eaſt ſide of the partage ground, between the eaſtern and weſtern waters, is conſiderably lower than the correſponding parts of the United-States, which are on its weſt ſide. Hence it follows, that when the ſnows melt, or heavy rains fall on the mountains, much more of the water, proceeding from theſe ſources, is determined to the Atlantic ocean than to the river Miſſiſſipi. In conſequence of which, we are often too wet, while our weſtern neighbours are too dry.

The ſide of South-Carolina, which borders on the ſea, is interſected by thirteen rivers, viz. The Waccamaw, Black-river, Santee, Wandow, Cooper, Aſhley, Stono, Ediſto, Aſheppoo, Combahee, Cooſaw, Broad, and May rivers. Some of theſe have two mouths, others have ſeveral heads, or branches. The river Santee, in particular, is formed by a junction of the waters of the Enoree, Tyger, Pacolet, and Catawba rivers, which originate in the mountains. All of the firſt mentioned thirteen rivers have a margin of ſwamp always on one ſide, but often on both, extending from half a mile to three miles.

Theſe ſwamps, in their natural ſtate, abound with uſeful timber of various kinds, and, when cleared, they reward their cultivators with plentiful crops, eſpecially in ſeaſons that are exempt from freſhes. In the intervals between theſe rivers, there are often inland ſwamps, freſh-water lakes, and great quantities of low level land, which, after heavy rains, continue for a long time overflowed. The remainder is a dry, and, for the moſt part, a ſandy ſoil.

The ſoil of South-Carolina is naturally, and, for the purpoſes of taxation, politically divided into the following claſſes. 1, Tide-ſwamp. 2, Inland ſwamp. 3, High river ſwamp, or low grounds, commonly called ſecond low grounds. 4, Salt marſh. 5, Oak and hickory high land. 6, Pine barren. The tide and inland ſwamps are peculiarly adapted to the culture of rice and hemp. The high river ſwamps to hemp, corn, and indigo. The ſalt marſh has hitherto been, for the moſt part, neglected; but there is reaſon to believe, that it would amply repay the expence and labour of preparing it for cultivation. The oak and hickory high land is well calculated for corn and proviſions, and alſo for indigo and cotton. The pine barren is the leaſt productive ſpecies of our ſoil, but it is the moſt healthy. Daily experience proves that, under certain circumſtances, it may be cultivated to advantage for proviſions, indigo, and cotton. A proportion of it is an indiſpenſably neceſſary appendage to a ſwamp plantation. It is remarkable that ground of this laſt deſcription, though comparatively barren, affords nouriſhment to pine trees, which maintain their verdure through winter, and adminiſter more to the neceſſities and comforts of mankind than any other trees whatſoever. This may perhaps, in part, be accounted for by the well-known obſervation, that much of the pine land of this ſtate is only ſuperficially ſandy, for by digging into it a few inches or feet, the ſoil, in many places, changes from ſand to clay.

In digging into the ſwamps, on the margin of the rivers, the operator frequently meets with the trunks of large trees, which appear to have been buried for ages, and is always arreſted in his progreſs by the ſpringing of water. As deep as theſe ſwamps have been penetrated, they conſiſt of a rich blue clay, or a black ſoft mould, of inexhauſtable fertility.

From this deſcription of the low country, it is apparent, that there muſt be a predominance of moiſture; and from the co-operation of heat, there is a ſtrong tendency to putrefaction. From the ſame cauſes, and the preſence of acid gaſes, floating in the common atmoſphere, metals are very ſubject to ruſt. This is particularly the caſe with iron, which, when expoſed to the air, loſes, in a ſhort time, all its brightneſs, and much of its ſolidity.

The climate of South-Carolina is in a medium between that of tropical countries, and of cold temperate latitudes. It reſembles the former in the degree and duration of its ſummer heat, and the latter in its variableneſs. In tropical countries, the warmeſt and cooleſt days, do not, in the courſe of a twelve month, vary more from each other than ſixteen degrees of Fahrenheit's thermometer: there is, conſequently, but little diſtinction between their ſummer and winter: but a variation of 83 degrees between the heat and cold of different days in the ſame year, and of 46 degrees in the different hours of the ſame day in South-Carolina, is to be found in its hiſtorical records.

In our cooleſt ſummers, the mercury in the thermometer* has reached 89, and in the five laſt years in which obſervations have been made by this ſociety, it has never riſen above 93, nor fell below 28. In the year 1785 it ſtood for a few hours at 96, which was its greateſt height ſince the year 1752, when it roſe to 101. In the year 1794 it was never lower than 34, during the time of obſervation, which began at eight in the forenoon, and ended at ten in the evening. The difference between our cooleſt and warmeſt ſummers, therefore, ranges between 89 and 96; and the difference between our mildeſt and ſevereſt winters, ranges between 34 and 28. Our greateſt heat is ſometimes leſs, and never much more, than what takes place in the ſame ſeaſon in Baltimore, Philadelphia, and New-

---

* Fahrenheit's thermometer is what is every where meant in this publication, and the obſervations on it, therein referred to, were reported to the medical ſociety, as taken by Dr. Robert Wilſon, at his houſe, the weſt end of Broad-ſtreet, at the hours of eight in the morning, between two and three in the afternoon, and at ten in the evening. The inſtrument was ſuſpended in an open paſſage, about ten feet from the earth.

York; but their warm weather does not, on an average, continue above ſix weeks, while ours laſts from three to four months. Our nights are alſo warmer than theirs. The days in Charleſton are moderated by two cauſes, which do not exiſt, in an equal degree, to the northward of it. Our ſituation open and near the ſea, almoſt ſurrounded by water, and not far diſtant from the torrid zone, gives us a ſmall proportion of the trade winds, which blowing from the ſouth-eaſt are pleaſantly cool. Theſe generally ſet in about 10 A. M. and continue for the remainder of the day. A ſecond reaſon may be aſſigned from the almoſt daily ſhowers of rain that fall in the hotteſt of our ſummer months.

Since we began our meteorological journal (January, 1791) the mercury in the thermometer has never been under 28, though in the year 1752 it was down to 18. Mr. Hemitt, in his hiſtorical account of South-Carolina, aſſerts, that he had ſeen the mercury in Fahrenheit's thermometer, down to 16, and that others had obſerved it as low as 10. On the whole, for five years paſt, our greateſt heat has been eight degrees, and our greateſt cold ten degrees leſs than they were about the middle of this century, as obſerved by Dr. Chalmers. A ſimilar obſervation, though not to the ſame extent, will reſult from comparing the greateſt heat and cold of the five laſt years, 1791, 1792, 1793, 1794, and

1795, as recorded by the medical ſociety, with the years 1750, 1751, and 1752, the three firſt years recorded by Dr. Chalmers. The greateſt heat in 1791, was 90, in 1792, 93, in 1793, 89, in 1794, 91, in 1795, 92; but the greateſt heat in 1750, was 96, in 1751, 94, in 1752, 101. The greateſt cold in 1791, was 28, in 1792, 30, in 1793, 30, in 1794, 34, in 1795, 29; but in the year 1750, it was 25, in 1751, it was 23, and in 1753, it was 18. Whether this change is accidental, or the conſequence of an improvement in our climate, time and future obſervations muſt determine. The advantages reſulting to the temperature of the air, and to the healthineſs, as well as to the appearance of any country, from the art of man, inhabiting and cultivating it, are inconceivably great. We may, therefore, indulge the hope, that ours is progreſſively meliorating from permanent and encreaſing cauſes.

The quantity of low and moiſt ground in Carolina, is daily diminiſhing. Cultivation naturally tends to exſiccation. Wherever the tide flows it brings ſomething with it, which being left, helps to fill up cavities. Indeed the ſurface of the earth naturally, and univerſally, approximates to a level. The rains waſh from the high grounds, and add what is carried away to the low. The bones of an enormouſly large animal have been lately dug up in Biggin-ſwamp, by the labourers at the Santee Canal, eight feet under ground. The trunks of trees have been frequently found at an equal or greater depth. It is poſſible that theſe may have been buried below the ſurface of the ground, as deep as they were lying, but it is much more probable that they originally ſunk in the earth, one, two, or three feet, by their own weight, and were afterwards covered by ſucceſſive alluvions in the lapſe of time, to the depth at which they were found.

In proportion as our country has been cleared and cultivated, its rich low grounds, from various cauſes, have become higher and drier. Much ſand and dry clay has been blown on them by high winds. The cutting down of trees has deſtroyed their perſpiration. Many hundred gallons of water are daily iſſuing from every acre of ground that is fully timbered. The exhalation from the bare ſurface of the earth expoſed to the ſun, is much greater than it would be, if the ſame ground was covered with trees. It is a well known fact, that many old rice fields are now much leſs productive, than they were thirty years ago. It is probable, that the day is not far diſtant, when much of the ſwamp of this ſtate, will be converted into dry arable land, more fit for corn than rice. Though the moiſture of the ſoil has in general decreaſed, with our increaſing cultivation, yet freſhes in ſuch of our rivers, as originate in the mountains, have, for ſome years paſt, been higher, and more frequent than uſual.

Theſe are ſerious evils, threatening the deſtruction of ſome of our moſt valuable lands. To inveſtigate the cauſes thereof, is an object well worthy the attention of every friend to Carolina. One reaſon aſſigned for the late increaſe of freſhes is, that the clearing of the upper country opens many ſprings, and gives circulation to much of what would, in a ſtate of nature, be ſtagnant water. By means of drains, made with a view of rendering the ground plantable, the water, which would otherwiſe remain quieſcent, till it was either abſorbed, or evaporated, is conducted to the neareſt ſtream, all of which, ſooner or later, empty into the rivers. It is within the recollection of the old inhabitants of our upper country, that the rivers thereof were, in the days of their youth, much more ſhallow than they are at preſent. If the obſervation already made, "That the tide, wherever it flows, brings ſomething with it, which being left behind, helps to fill up cavities," is well founded, may we not ſuppoſe, that the floods, ruſhing down the rivers from the mountains, meet with obſtructions, yearly increaſing, which retard their courſe to the ocean? If this is one cauſe, among others, of the increaſe of freſhes, the remedy would be to expedite the paſſage of the water from the rivers to the ſea, by multiplying and enlarging their vents, and ſhortening their courſe. Whether this is practicable to an extent that would ſave all the land adjacent to the rivers, is very doubtful; but it certainly might be effected ſo as to ſave many plantations, provided the owners would ſyſtematically co-operate in the execution of a judicious plan, for the more ſpeedy diſcharge of the ſuperfluous water.

The common tides in Aſhley and Cooper rivers riſe in Charleſton from ſix to eight feet; the ſpring tides from eight to ten. A common tide, with an eaſtwardly wind, is higher than a ſpring tide, with a weſtwardly wind. The tides in general aſcend our rivers about thirty five miles from the ocean, in a direct line. The higheſt ground in Charleſton, is between nine and ten feet above the higheſt ſpring tides. This is to be found in George-ſtreet, between Meeting and King ſtreets. The next higheſt ground is in Harleſton, in Wentworth-ſtreet. The next in the weſt end of Broad-ſtreet, near the theatre. The next in Meeting-ſtreet, nearly oppoſite the new market.

Earthquakes are ſo rare, and ſo ſlight, as not to have been noticed in our hiſtorical records. A momentary one, that did no damage, is recollected by ſome of our old citizens, as having taken place about the middle of the preſent century. But whirlwinds are more common. Theſe, for the moſt part, are confined to narrow limits, and run in an oblique direction, levelling the loftieſt trees that ſtand in their way.

There are ſome circumſtances which make it probable, that the whole of the low country in Carolina, was once covered by the ocean. In the deepeſt deſcent into the ground, neither ſtones nor rocks obſtruct our progreſs, but every where ſand or beds of ſhells: intermixed with theſe, at ſome conſiderable depth from the ſurface, petrified fiſh are ſometimes dug up. Oyſter ſhells are found in great quantities, at ſuch a diſtance from the preſent limits of the ſea-ſhore, that it is highly improbable they were ever carried there from the places where they are now naturally produced. A remarkable inſtance of this occurs in a range of oyſter-ſhells extending from Nelſon's ferry, on the Santee-river, ſixty miles from the ocean, in a ſouth-weſt direction, paſſing through the intermediate country, till it croſſes the river Savannah, in Burke-county, and continuing on to the Oconee-river, in Georgia. The ſhells in this range are uncommonly large, and are of a different kind from what are now found near our ſhores. They are in ſuch abundance, as to afford ample reſources for building and agriculture. At the diſtance of ſix, eight, or ten feet from the ſurface, near our ſea-coaſt, water univerſally ſprings. A ſmall proportion of ſea ſalt is found in all the well water of this city, and it is probable that the whole of it is obtained by filtration from the ocean, or adjacent rivers.

Our country partakes ſo much of the nature of a Weſt-India climate, as to be liable to hurricanes, but theſe have been leſs frequent than formerly. Within the firſt fifty-two years of the preſent century, three took place, viz. in 1700, 1728, and 1752, but for the laſt forty-three years nothing of the kind, worthy of notice, has occurred. Our elder citizens inform us, that thunder ſtorms were, in the days of their youth, much more frequent and more injurious than they have been for the laſt thirty years. This is remarkably the caſe in Charleſton, and is probably, in part, owing to the multiplication of electrical rods. Mr. Hewitt, who wrote about twenty-five years ago aſſerts, that he had known in Charleſton five houſes, two churches, and five ſhips ſtruck with lightning, during one thunder ſtorm. Nothing comparable to this has occurred for many years paſt. It is nevertheleſs true, that during the ſummer, there are few nights, in which lightning is not viſible in ſome part of the horizon.

The tranſitions from heat to cold are great, and ſometimes very ſudden. Dr. Chalmers ſtates, that on the 10th of December, 1751, the mercury in Fahrenheit's thermometer fell forty-ſix degrees in ſixteen hours, that is, from 70 to 24. The greateſt variation that has taken place in a day, in the five years that have paſſed ſince the inſtitution of this ſociety, was on the 28th of October, 1793, when it fell to

37 from 74, at which it ſtood on the 27th; that is thirty-ſeven degrees in the courſe of twenty-four hours.

The number of extreme warm days in Charleſton is ſeldom above thirty in a year, and it is rare for three of theſe to follow each other. On the other hand, eight months out of twelve are moderate and pleaſant. The number of piercing cold days in winter is more, in proportion to our latitude, than of thoſe which are diſtreſſingly hot in ſummer, but of theſe more than three rarely come together. There are, on an average, in this city, about twenty nights in a twelvemonth, in which the cloſeneſs and ſultrineſs of the air forbid us, in a great meaſure, the refreſhment of ſound ſleep, but this ſevere weather is, for the moſt part, ſoon terminated by refreſhing and cooling ſhowers. April, May, and June are, in common, our healthieſt months; Auguſt and September the moſt ſickly; April and May the drieſt; June, July, and Auguſt the wetteſt; November the pleaſanteſt. In ſome years January, and in others February is the coldeſt month. It is remarkable, that when orange trees have been deſtroyed by froſt, it has always been in the month of February. December is the beſt month in the year for ſtrangers to arrive in this city: ſuch ſhould calculate ſo as not to make their firſt appearance either in ſummer, or the two firſt months of autumn. The hotteſt day of the year is ſometimes as early as June, which was the caſe in the year 1791; ſometimes as late as September as in the year 1793; but ofteneſt in July or Auguſt. The hotteſt hour of the day in Charleſton varies with the weather: it is ſometimes as early as ten in the forenoon, but moſt commonly between two and three in the afternoon.

In the ſpring when the ſun begins to be powerful, a langour and drowſineſs is generally felt, reſpiration is accelerated, and the pulſe becomes quicker and ſofter. Strangers are apt to be alarmed at theſe feelings, and anticipate an increaſe of them, with the increaſing heat of the ſeaſon, but they find themſelves agreeably diſappointed. The human frame ſo readily accommodates itſelf to its ſituation, that the heat of June and July is, to moſt people, leſs diſtreſſing than the comparatively milder weather of April and May. On the other hand, though September is cooler than the preceeding months, it is more ſickly, and the heat of it more oppreſſive. Perſpiration is diminiſhed and frequently interrupted; hence the ſyſtem, debilitated by the ſevere weather of July and Auguſt, feels more ſenſibly, and more frequently, a ſenſe of languor and laſſitude. Beſides the coolneſs of the evenings in September, and the heavy dews that then fall, multiply the chances of getting cold. It is, on the whole, the moſt diſagreeable month in the year.

Froſts ſeldom extend into the ground more than two inches in the coldeſt ſeaſons. They generally commence about the middle of October, and terminate in the month of March. On their approach they bring with them a cure for the fevers then uſually prevalent. The inhabitants of Charleſton keep fires in their houſes from four to ſix months in the year, but there are ſome warm days in every month, in which fires are diſagreeable. On the other hand, there are ſome moiſt cool days in every month of the year, with the exception of July and Auguſt, in which fires are not only healthy but pleaſant. Ice is ſeldom half an inch thick, and rarely gives an opportunity for the wholeſome exerciſe of ſkating.

The annual medium temperature of the air in Charleſton, was $65\frac{2}{12}$ in 1791, 65 in 1792, $65\frac{2}{12}$ in 1793, 65 in 1794, $64\frac{5}{12}$ in 1795. The average medium for theſe five years, without fractions, is 65. The average medium of the ten years, viz. from 1750 to 1759, which were obſerved and recorded by Dr. Chalmers, was 66. From theſe facts it appears probable, that the aggregate heat of different years, in the ſame place, is nearly equal. A very warm ſummer is preceeded or followed by a proportionably cold winter, ſo as to bring different years nearly to the ſame temperature of the air, on an average of the whole four ſeaſons.

The greateſt, leaſt, and mean heat, for every month of the year, for the five laſt years, will appear from the annexed table.

TABLE OF THE GREATEST, LEAST, AND MEAN DEGREES OF HEAT, IN CHARLESTON, FOR THE YEARS

Month.	1791	1792	1793	1794	1795
January	G. 65	G. 66	G. 67	G. 65	G. 60
	L. 35	L. 30	L. 36	L. 35	L. 33
	M. 50	M. 48	M. 51½	M. 50	M. 46½
Febru.	G. 69	G. 68	G. 74	G. 70	G. 63
	L. 35	L. 30	L. 35	L. 34	L. 29
	M. 52	M. 49	M. 54½	M. 52	M. 46
March	G. 78	G. 74	G. 72	G. 76	G. 73
	L. 42	L. 41	L. 34	L. 43	L. 33
	M. 60	M. 57½	M. 53	M. 59½	M. 53
April	G. 82	G. 80	G. 83	G. 74	G. 78
	L. 52	L. 52	L. 56	L. 50	L. 53
	M. 67	M. 66	M. 69½	M. 62½	M. 65½
May	G. 87	G. 84	G. 83	G. 86	G. 84
	L. 61	L. 64	L. 62	L. 63	L. 70
	M. 74	M. 74	M. 72½	M. 74½	M. 77
June	G. 87	G. 89	G. 86	G. 91	G. 86
	M. 69	L. 63	L. 70	L. 65	L. 71
	L. 78	M. 76½	M. 78	M. 78	M. 78½
July	G. 89	G. 93	G. 88	G. 85	G. 92
	L. 66	L. 70	L. 76	L. 72	L. 74
	M. 77½	M. 81½	M. 82	M. 78½	M. 83
August	G. 90	G. 92	G. 87	G. 91	G. 88
	L. 74	L. 69	L. 70	L. 75	L. 72
	M. 82	M. 80½	M. 78½	M. 83	M 80
Sept.	G. 87	G. 85	G. 89	G. 88	G. 83
	L. 61	L. 60	L. 69	L. 66	L. 59
	M. 74	M. 72½	M. 79	M. 77	M. 71
Oct.	G. 83	G. 77	G. 82	G. 75	G. 79
	L. 50	L. 46	L. 35	L. 47	L. 48
	M. 66½	M. 61½	M. 58½	M. 61	M. 63½
Novem.	G. 72	G. 74	G. 76	G. 74	G. 75
	L. 40	L. 45	L. 39	L. 37	L. 42
	M. 56	M. 59½	M. 57½	M. 55½	M. 58½
Decem.	G. 63	G. 70	G. 66	G. 68	G. 71
	L. 28	L. 34	L. 30	L. 37	L. 30
	M. 45½	M. 52	M. 48	M. 52½	M. 50½

To face Page 16.

BRITISH MUSEUM

The evils that every year take place, more or leſs, in Philadelphia, from drinking cold water, are unknown in this city. Our water lies ſo near the ſurface of the earth, that the difference of its temperature from that of the common air, is not ſo great as to create danger, unleſs in very particular circumſtances. A ſolitary caſe occured in September, 1791, of a negro fellow, who, after taking a draught of cold water, when very warm, ſuddenly fainted away, and, immediately after, became inſane, and continued ſo for ſeveral days, but he afterwards recovered.

Inſtead of ſudden deaths from cold water, we have to lament the ſame event from the intemperate uſe of ſpirituous liquors. The ſtimulus of ardent ſpirits, added to the ſtimulus of exceſſive heat, drives the blood forcibly on the brain, and produces fatal conſequences. Theſe are oftener apoplexies than ſtrokes of the ſun. Four ſots expired ſuddenly, in one hot day laſt ſummer, in one ſquare of this city.

The eaſt and noth-eaſt winds in winter and ſpring, are very injurious to invalids, eſpecially to thoſe who have weak lungs, or who are troubled with rheumatic complaints. In theſe ſeaſons they bring with them that languor, for which they are remarkable in other countries; but in ſummer, by moderating heat, they are rather wholſome than otherwiſe.

Weſt and north-weſt winds, which blow over large tracts of marſh, are, in the ſummer ſeaſon, unfriendly to health. The north and north-weſt winds are remarkable for their invigorating effects on the human frame. South winds are healthy in ſummer, but much leſs ſo in winter.

The general direction of the winds in this city, for four ſucceſſive years, may be learnt from the annexed table.

On December 31, 1790, at four o'clock, A. M. wind N. E. a ſevere ſnow ſtorm began in Charleſton, which continued for twelve hours, in conſequence of which, the ſtreets were covered with ſnow, from two to four inches deep, and the ſea iſlands, north-eaſtward, to the depth of ſix inches. Another took place on the 28th of February, 1792, wind N. W. which continued for ſeveral hours, and till it covered the ground five or ſix inches. Theſe were rare phænomena. Snow is more common, and continues longer in proportion as we recede from the ſea-ſhore. The further we proceed weſtward, till we reach the mountains, which divide the weſtern from the eaſtern waters, the weather is colder, and vegetation later. While the inhabitants of Charleſton can ſcarcely bear to be covered, in the hours of ſleep, with a ſheet, they who live in the town of Columbia, one hundred and twenty miles to the north-weſt of

TABLE of the COURSE of the WINDS.

Month.	1791 Wind.	Days	1792 Wind.	Days	1793 Wind.	Days	1794 Wind.	Days
January	N. E. & E.	7	W. & N. W.	13	N W. & W.	18	N. W.	9
	S. W. & W.	3	S. W.	2	S. E. & E.	4	N. E.	10
	N. W.	1	N. E.	15	S. W. & S.	8	W. & S. W.	19
					N. E. & E.	6		
February	S. E.	3	W. & N. W.	15	N. E. & N.	7	N. E.	6
	S. W. & W.	9	S. W.	4	N. W. & W.	12	N. W.	11
	N. E. & E.	12	N. E. & E.	11	S. E. & E.	8	S. W. & W.	10
	N. W.	4			S. W. & S.	7		
March	N. E. & E.	12	W. & S. W.	12	N. E. & E.	9	S. W. & W.	13
	S. W. S. & W.	14	N. W.	6	S. W. & W.	17	S. E. & S.	11
	N. W.	2	N. E. & E.	5	N. W. & N.	6	N. W. & N.	4
			S. E.	3	S. E.	7	N. E. &. N.	11
April	S. E. & S.	5	S. E. & E.	4	N. E. & E.	14	N. E. & E.	14
	S. W. & W.	14	S. W. & W.	21	S. E. & S.	5	S. W. & W.	3
	N. E. & E.	14	N. W.	2	S. W. & W.	13	N. W.	5
					N. W. & N.	4	S. E. & S.	10
May	N. W & W.	4	W. & S. W.	13	S. E. & E.	14	N. E. & N.	10
	S. W. & W.	12	N. N. E. & E.	12	S. W. & W.	9	S. E. & S.	15
	S. E. & E.	15	S. E. & E.	3	N. E.	10	S. W. & W.	12
	S. W.	1			N. W.	2	N. W.	7
June	S. E. & E.	10	S. W. & W.	13	S. W. & W.	17	N. W. & W.	14
	S. W. & W.	14	S. E. & E.	10	N.	1	S. E. & E.	7
	N. E.	2	N. E.	9	S. E. & S.	4	S. W. & S.	18
			N. W.	2			N. E.	3
July	S. W. & W.	12	S. W. & W.	13	S. W. & W.	21	N. E. & E.	7
	N. W. & N.	3	N. E. & E.	16	S. E & S.	13	S. E. & S.	5
	N. E. & E.	14	S. E.	7	N. W.	2	S. W. & W.	20
	S. E.	3	N. W.	1	N. E. & E.	5	N. W. & N.	2
Auguſt	W. S. W. & S.	19	W. & S. W.	12	S. W.	14	N. E. & E.	16
	S. E. & E.	6	N. E. & E.	15	N. E. & E.	11	S. W. & W.	11
	N. E.	2	S. E.	5	N. W.	2	N. W. & W.	3
	N. W.	3	N. W.	4	S. E. & S.	11	S. E. & S.	10
September	S. W. & W.	12	N. E. & E.	23	S. W. & S.	9	N. E. & E.	14
	N. W.	6	S. E. & S.	1	S. E. & E.	10	S. E. & S.	8
	S. E. & S.	6	S. W. & W.	6	N. E.	19	S. W. & W.	15
	N. E.	8	N. W.	3	N. W.	5	N. W.	2
October	N. N. E. & E.	16	N. W. & N.	7	N. E. & E.	20	N. E. & N.	19
	N. W. & W.	14	S. W. & W.	4	N. W. & W.	7	N. W. & W.	5
	S. E.	3	N. E. & E.	18	S. E. & S.	10	S. E. & E.	10
					S. W.	4	S. W	4
November	N. W.	12	N. W. & W.	18	S. W. & W.	10	S. W. & W.	9
	N.	3	S. W. & S.	7	N. E. & E.	10	N. E. & E.	13
	N. E.	7	N. E. & E.	10	S. E. & S.	6	S. E.	2
	S. & S. E.	2	S. E.	8	N. W. & N.	3	N. W.	8
December	W. N. W. & N.	22	N. E. & E.	10	N. W.	13	N. W. & N.	10
	N. E.	3	N. W. & N.	15	N. E. & E.	5	S. W. & W.	10
	S. W.	3	S. W. & W.	11	S. W. & W.	9	N. E. & E.	10
	S. E.	3	S. E.	1	N.	4	S. E. & S.	3

To face p. 18.

BRITISH
MUSEUM

of it, are not incommoded with a blanket. The difference is greater as we advance to Ninety-ſix, Pinckney, and Waſhington diſtricts.

The ſum total of rain, on an average of ten years, viz. from 1750 to 1759, as obſerved by Dr. Chalmers, was 41. 75 inches in the year. The quantity of rain that fell in each month of the year 1795, was as follows:

	INCHES.	10ths.	
January,	8	5	
February,	1	8	
March,	4	6	
April,	2	4	
May,	8	1	
June,	8	1	
July,	5	2	
Auguſt,	9	4	
Sept. and October,	8	9	
November,	0	9	
December,	5	0	
	71	8	in the year.

In the four years preceeding 1795, before we began to meaſure the quantity of rain, the number of days on which it fell in conſiderable quantities, without noticing ſlight tranſient ſhowers, was as follows:

DAYS OF RAIN.

	1791	1792	1793	1794
January,	2	12	12	9
February,	8	7	9	5
March,	9	8	11	12
April,	6	2	9	7
May,	3	6	14	8
June,	15	9	8	13
July,	10	9	10	23
Auguſt,	10	10	15	13
September,	10	6	8	9
October,	8	4	3	8
November,	9	5	9	10
December,	6	10	6	11
	96	88	114	118

When the waters are kept in motion by a ſucceſſion of ſhowers, it is generally healthy; but fevers are uſually rife, when a ſeries of warm dry days follows great falls of rain. The ciſtern water of this city, collected from rain, is a degree and a half warmer than the well water; and the temperature of the well water is 64½, which is twelve degrees warmer than that of Philadelphia.

Our old people are ofteneſt carried off in cold weather; the young, the intemperate, and the labouring part of the community, when it is hot.

It is to be regretted, that bilious remitting and intermitting fevers have increaſed in the country, with the clearing thereof. The felling of trees, and opening of avenues to the rivers, have given more extenſive circulation to marſh miaſmata. The increaſe of mill-dams in the upper country has been injurious to the health of its inhabitants. In Charleſton a change has taken place much for the better. Bilious remitting autumnal fevers have, for ſome years paſt, evidently decreaſed. The ſmall-pox is now a trifling diſorder, compared with what it was in 1760 and 1763. Pleuriſies, which were formerly common and dangerous, are now comparatively rare, and ſo eaſily cured, as often to require no medical aid. The dry belly-ache has, in a great meaſure, diſappeared: perhaps this may be in part owing to the increaſing diſuſe of punch. April and May uſed to be the terror of parents; but the diſeaſes, which thirty years ago occaſioned great mortality among children in the ſpring, have, for ſome years paſt, been leſs frequent and leſs mortal. It is now found, by happy experience, that they are often cured, or prevented, by country air. The three laſt Aprils have paſſed over without any notice being taken on our journals, of the diarrhæa of infants, as having occurred in the practice of the members of this ſociety.

A ſpecies of ſore throat, accompanied with ſymptoms of the croup, which formerly ſwept off numbers of children, has, for the four laſt years, rarely occurred in practice. More rational methods of treating wives and mothers, have been ſubſtituted in lieu of the enervating confinement, impoſed in the days of our fathers. The good effects of which are viſible in the diminiſhed number of women who die in childbirth, and in the increaſing number of children who are now raiſed to maturity.

Dr. Moſely, in his treatiſe on tropical diſeaſes, obſerves as follows, "Hot climates are indeed very favorable to geſtation and parturition. Difficult labours are not common, and children are generally born healthy and ſtrong, and thrive more than they do in temperate climates, for a few years, and are not ſubject to the rickets nor the ſcrophula." As a proof of this general poſition, applied to our ſtate, I obſerve, that, in many inſtances, from ſeven to ten, and in a few, from ten to fifteen children have been raiſed to maturity in South-Carolina, from a ſingle pair. There are now eight families in Broad-ſtreet, between the ſtate-houſe and the weſtern extremity of that ſtreet, in which ſixty-nine children have been born, and of theſe fifty-ſix are alive. In that part of Meeting-ſtreet, which lies between Tradd-ſtreet and Aſhley-river, from ſix marriages, (which, with the exception of one, have taken place ſince the year 1782) forty-two children have been born, all of which, except three, are now alive, and the eldeſt of the whole is little more than fourteen. Within the ſame limits, ſeven other couple have fifty-two children living, the youngeſt of whom is twelve years old, and forty-ſeven are grown to maturity.

Greater inſtances of fœcundity frequently occur in our middle and upper country, chiefly among thoſe who inhabit poor land, at a diſtance from the rivers. There is a couple in Orangeburgh diſtrict, near the road that leads to Columbia from Orangeburgh, who lately had fifteen children alive out of ſixteen, and a fair proſpect of more. Another couple live in Darlington-county, fifteen miles from Lynch's-creek, who lately had thirteen children, and fifty-one grand children, all alive; and of their thirteen children, twelve were married at the ſame time.

The yellow fever raged in this city in the years 1700, 1732, 1739, 1745, 1748; but ſince the laſt mentioned year, nothing of the kind, of ſerious conſequence,* has taken place,

---

* Some perſons die almoſt every year, with the bilious fever, whoſe ſkin is yellow before or after death,

except the malignant fever of 1792 and 1794; which, though it reſembled the yellow-fever in many things, was entirely different in two important particulars. It was not contagious, nor did it affect any perſon who had, for any conſiderable time, been uſed to the air of Charleſton.

Sundry perſons from the country were infected with it in this city, who died on or immediately after their return; but in no inſtance was the diſeaſe propagated from them, nor among the attendants on thoſe who had the diſeaſe in Charleſton. It was a fever ſui generis, but reſembled the typhus icterodes of Sauvage. The whole mortality from it, in 1792 and 1794, did not exceed one hundred and fifty in each year.*

---

and ſome of whom diſcharge black matter by vomiting; but this is very different from what is commonly meant by the Weſt-India yellow-fever.

* It is much to be regretted that regular bills of mortality are not kept in Charleſton. To remedy this defect, on a particular occaſion, the ſextons of the different churches were deſired to give information of the number of perſons buried in their reſpective burial grounds, from which it appeared to the medical ſociety, that between the firſt of Auguſt, 1792, and the 26th of October, of the ſame year, one hundred and ſixty-eight white perſons were interred in the different burial grounds in Charleſton. When it is conſidered, that the typhus icterodes began about the middle of July, and did not diſappear till the middle of October, of this ſame year,

A TABLE of the Diſeaſes that occurred in Charleſton, from 1791, *to* 1795, *in the practice of the Members of the Medical Society, and entered by them on their Journal.*

	1791.	1792.	1793.	1794.	1795.
JANUARY.	Catarrhal fevers. Anginas.	Catarrhal fevers. Meaſles.	Catarrhal and intermittent fevers. Angina ulceroſa.	Catarrhal fevers. Hooping-cough.	Meaſles. Catarrhal fevers.
FEBRUARY.	Catarrhal fevers. Small-pox. Meaſles. Anginas.	Catarrhal and rheumatic fevers. Scarlatina anginoſa.	Catarrhal and rheumatic fevers. Scarlatina anginoſa.	Small-pox. Hooping-cough. Catarrhal fevers. Anginas.	Catarrhal and miliary fevers. Meaſles.
MARCH.	Small-pox. Meaſles.	Catarrhal fevers. Small-pox. Meaſles. Angina ulceroſa.	Catarrhal fevers. Anginas. Small-pox. Dyſentery.	Small-pox. Anginas. Catarrhal fevers. Hooping-cough.	Catarrhal and miliary fevers. Meaſles.
APRIL.	Small-pox. Meaſles. Diarrhœa of Infants. Scarlatina anginoſa.	Small-pox. Meaſles. Diarrhœa of infants.	Small-pox. Meaſles. Diarrhœa of infants.	Miliary fevers. Small-pox. Meaſles. Dyſentery.	Meaſles. Catarrhal fevers. Pleuriſies.
MAY.	Small-pox. Meaſles. Angina ulceroſa. Diarrhœa of Infants.	Small-pox. Meaſles. Hooping cough. Cholera morbus. Dyſentery of infants.	Small-pox. Anginas. Hooping-cough. Catarrhal fevers. Dyſentery.	Small-pox. Hooping-cough. Bilious remittent and intermittent fevers.	Meaſles. Catarrhal fevers. Pleuriſies. Diarrhœa.
JUNE.	Small-pox. Meaſles. Dyſentery. Diarrhœa. Intermittent fevers.	Small-pox. Meaſles. Dyſentery. Intermittent fevers.	Small-pox. Diarrhœa. Dyſentery. Hooping-cough. Intermittent fevers. Anginas.	Intermittent fevers. Diarrhœa. Dyſentery. Small-pox. Hooping-cough.	Hooping-cough. Diarrhœa. Dyſentery. Intermittent fevers.
JULY.	Small-pox. Meaſles. Dyſentery. Diarrhœa. Intermittent fevers. Scarlatina anginoſa.	Small-pox. Dyſentery. Meaſles. Intermittent fevers. Scarlatina.	Small-pox. Hooping-cough. Intermittent fevers. Mumps.	Typhus icterodes. Small-pox. Dyſentery and diarrhœa of infants. Hooping-cough.	Small-pox. Hooping-cough. Intermittent fevers. Dyſentery. Meaſles.
AUGUST.	Bilious intermittent & remittent fevers. Small-pox. Catarrhal fevers. Dyſentery and Diarrhœa. Meaſles.	Typhus icterodes. Catarrhal fevers. Rheumatiſms. Small-pox. Meaſles.	Hooping-cough. Intermittent fevers. Dyſentery. Diarrhœa.	Small-pox. Hooping-cough. Diarrhœa and dyſentery. Typhus icterodes.	Fevers. Dyſentery. Hooping-cough.
SEPTEMBER.	Intermittent fevers. Catarrhal fevers. Meaſles. Angina ulceroſa. Croup.	Typhus icterodes. Catarrhal and rheumatic fevers. Dyſentery. Hooping cough.	Catarrhal fevers.	Typhus icterodes. Intermittent fevers.	Typhus icterodes. Rheumatic fevers.
OCTOBER.	Catarrhal fevers. Spaſmodic colics. Intermittent fevers. Meaſles.	Intermittent fevers. Croup. Small-pox.	Catarrhal fevers. Scarlatina. Intermittent fevers.	Typhus icterodus. Catarrhal and intermittent fevers. Hooping-cough.	Typhus icterodes. Catarrhal and intermittent fevers.
NOVEMBER.	Croup. Scarlatina anginoſa.	Small-pox. Hooping-cough. Intermittent fevers.	Hooping-cough. Catarrhal fevers.	Meaſles. Catarrhal fevers. Anginas. Intermittent fevers. Quinſy.	Typhus icterodes. Intermittent and catarrhal fevers.
DECEMBER.	Meaſles. Angina ulceroſa. Pleuriſies. Catarrhal fevers.	Intermittent fevers. Angina ulceroſa. Catarrhal fevers. Dyſentery. Small-pox.	Hooping-cough. Intermittent and Catarrhal fevers.	Meaſles. Catarrhal fevers.	Catarrhal fevers.

To face p. 25.

Camp fevers were, as uſual, attendant on the armies in the time of the late war. The ſcarlatina anginoſa was alſo common in Charleſton, in the year 1783, but attended with little mortality. The typhus icterodes of 1792 and 1794 was confined to ſtrangers, and did not extend beyond the limits of this city. Theſe diſeaſes were, in a limited ſenſe, epidemic; but, except the influenza, no ſerious extenſive epidemic has taken place among us for the laſt twenty years.

The annexed table, extracted from the journals of the medical ſociety, will ſhew, at one view, the general tenor of the diſeaſes that have occurred in Charleſton, for the five laſt years.

It muſt be highly agreeable to every benevolent mind, that Charleſton is now more healthy than formerly, and likely to be more and more ſo. With pleaſure I anticipate, that in the courſe of the next century, our buildings will be extended into Aſhley and Cooper rivers, as far as low water mark; that the adjacent marſhes will be banked in; the ſtreets paved, and well provided with ſewers; the bogs drained; the low grounds filled up; and the whole area of the city be firm, ſolid, high, and

---

1792, and that Auguſt and September are the moſt ſickly months of the whole twelve, the death of one hundred and ſixty-eight perſons, in the courſe of eighty-ſeven days, in a city, whoſe white population was about eight thouſand perſons, muſt be deemed very moderate.

and dry land. Thoſe who recollect the time when ducks were ſhot in a pond, which occupied the ground on which the ſtate-houſe is erected—when a creek ran up to Church-ſtreet, and was croſſed on a bridge, near where the French church now ſtands—when they uſed to ſwim over that ſpot of ground which is now Mr. Allſton's garden—when Water-ſtreet, which, at preſent, is high and dry, was almoſt impaſſable, will acquit me of being too ſanguine, when I indulge the hope, that our grand-children will be leſs expoſed to fevers than we are.

It is a glorious exploit in a country, whoſe maladies chiefly ariſe from heat and moiſture, to redeem its metropolis from moiſture, which, of the two, is the moſt plentiful ſource of diſeaſe. Whoever builds a houſe, fills a pond, or drains a bog, deſerves well of his country.*

---

* Our fellow-citizen, Captain Toomer, is entitled to praiſe on this account; he has converted a very miry ſpot in Meeting-ſtreet, into ſolid ground, and covered it with houſes. Much remains to be done in this way, to improve the health of Charleſton. The exiſtence of a pond in a city, is a reproach to its police. Efficient meaſures ſhould be immediately adopted to drain or fill up the low grounds. The ſtreets ſhould be paved, and the ſewers conſtructed on a different plan. They ought to be completely covered over, and extended on each ſide to the neareſt river: while ſmaller ones, from every houſe, ſhould enter them near their top, and on a deſcent. All offenſive matter ſhould be tranſmitted through theſe lateral ſewers to the main one in the middle of the ſtreet; and

It is no ſmall advantage to the inhabitants of Charleſton, that they can, in the ſpace of two hours, parry the heat of ſummer, by going to Sullivan's-iſland, where many invalids, eſpecially children, have found a ſpeedy reſtoration to health and ſtrength. Our citizens have gained ſo much by frequenting this iſland, we may well wonder that is only three years ſince it began to be a place of ſummer reſort.

Intermitting fevers are common to thoſe who inhabit on or near to the banks of our rivers. On the other hand, by removing into the high and dry lands, three or four miles from the rivers, ponds, and mill-dams, fevers may, for the moſt part, be avoided. Of this a remarkable inſtance has lately occurred in St. Stephens, the inhabitants of which by quitting the ſwamps in ſummer, and fixing themſelves in a new ſettlement, called by them Pine-Ville, have, for two years paſt, in a great meaſure, eſcaped the diſeaſes which are common in the moſt ſickly ſeaſon of the year.

The ſwamps of South-Carolina terminate about one hundred and ten miles from the ſea-coaſt; from thence weſtward the country becomes more hilly: the inhabitants are more ruddy, and in general more healthy.

The

---

and the whole ſo conſtructed, that as often as it rained, there would be a general purification of the city.

The tetanus is more common here than in colder countries. Twenty-one caſes of it, and moſt of them fatal ones, have been reported to the medical ſociety, between September, 1791, and Auguſt, 1795: ſeven of theſe took place in winter. Chronic complaints are comparatively rare in this ſtate. The gravel, the ſtone, the dropſy, the rheumatiſm, and the conſumption occur much ſeldomer with us* than with our northern brethren. Fevers are our proper endemick: he who eſcapes them has little elſe to fear. And much may be ſucceſsfully done for the avoidance of them by prudent careful active perſons, who ſtudy their conſtitutions, and obſerve a generous medium between living too high and living too low.

Were it poſſible exactly to contraſt the conſumptions of New-England with the fevers of South-Carolina, the inhabitants of both would have nearly equal reaſon to be ſatisfied with the place of their nativity. As to long life our eaſtern brethren have the advantage of us. In proportion to numbers, as far as hiſtory and obſervation warrant a compariſon, there are as many of their inhabitants reach 85 as of ours who attain to 70.

---

* "In tropical countries, people are ſeldom affected with dangerous pulmonic diſeaſes; idiotiſm and mania are very uncommon: lunacy is almoſt unknown: ſcurvy and gravel are diſeaſes ſeldom to be met with, and the ſtone ſcarcely ever. I have known many Europeans ſubject to the gravel at home who had no ſymptoms of it during their reſidence in the Weſt Indies."

Moſely on the diſeaſes of tropical climates, p. 112.

Extreme old age, though not common, is ſometimes attained by our citizens, eſpecially by thoſe who, in middle or early life, have migrated from the cold northern countries of Europe. A native of this city now reſides in it, at Amen corner, who is ſuppoſed by herſelf and acquaintances, to be an hundred years old. I have been well informed of ſeven or eight others in different parts of the ſtate, who have reached, and in ſome caſes exceeded that period. A particular cenſus of the aged inhabitants of this city was taken by Captain Jacob Milligan, in the year 1790, at the requeſt of a worthy citizen, ſince dead, from which it appeared that there were then, in Charleſton, 198 white perſons who were ſixty years of age, and one hundred of theſe were upwards of 70, and one 108. Our white population, at that period, was about 8000.

This imperfect ſketch of the ſoil, climate, weather, and diſeaſes of South-Carolina, collected from our medical journal, my own obſervations for 22 years, and the information of others, is reſpectfully ſubmitted to the ſociety, with a requeſt that each member would freely point out wherein I am deficient, and where I am miſtaken. He who, in the ſpirit of candor and philoſophy, corrects me in an old error, or furniſhes me with a new truth, deſerves, and ſhall receive my moſt grateful acknowledgements.

David Ramſay.

CHARLESTON, S. C.
May 1, 1796.

BRITISH MUSEUM

COPY-RIGHT SECURED ACCORDING TO LAW.